

INDUCTORS FOR INTEGRATED CIRCUITS, INTEGRATED CIRCUIT
COMPONENTS, AND INTEGRATED CIRCUIT PACKAGES

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Abstract of the Disclosure

An inductor for an integrated circuit or integrated circuit package comprises a three-dimensional structure. In one embodiment the inductor is arranged on an integrated circuit substrate in at least two rows, each row comprising upper segments and lower segments, with the upper segments being longer than the lower segments. The
10 upper segments in a first row are offset 180 degrees from those in an adjoining row to provide greater coupling of magnetic flux. The materials and geometry are optimized to provide a low resistance inductor for use in high performance integrated circuits. In another embodiment the inductor is arranged on an integrated circuit package substrate. Also described are methods of fabricating the inductor on an integrated circuit or as part
15 of an integrated circuit package.

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